

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 1030 to 1073

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1030

REMARKS.

Depth	Spec Grav	Temp	
Surface	1.0249	66	1.02574
5 fms	1.0249	66.5	1.02581
10 ~	1.0248	65.5	1.02556

			Trawling	
			Time	
			Down	up
0			1.52.45	38.40
100			1.56.10	35.25
200			1.59.35	32.15
300			2.03.15	29.05
400			2.10.00	25.45
500			15.50	22.05
530			2.17.10	2.20.40

2.20.40

TEMPERATURE RECORD.

Chester Lake Dredge
Instrument used,

Current number of observation, *1030*

Date, *Sept 14, 1881*

Locality,

Bearings, *Lat 39.58.30 N.*
Long 69.15 W

Time of day, *1.52* ; of tide,

State of sky, *Foggy*

Temperature of air, *65*

" surface of water, *66*

" at depth of *5* fathoms, *66 - 10 fms 63°*

" of bottom, *41* *20 - 48*

Depth, in fathoms, *325-337* *30 - 45*

Nature of bottom, *Yellow mud* *50 - 49.*
100 - 46

Direction of surface current,
wind - E.N.E.

Force of surface current,
wind 4

Direction of bottom current,
Drift N by W. 1 1/2 miles

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1031

REMARKS.

Depth	Spec Grav.	Temp.	
Surface	1.0247	65	1.025392
5 fms	1.0248	63.5	1.02528
10 "	1.0248	63	1.02521

	Soundings		Trawling	
	Time		Time	
	Down	up	Down	up
0	2.45.25	2.54	2.54.45	44.35
100	46.25	2.52.05	2.58.30	39.20
200	47.30	2.50.15	3.00.15	3.35.25
240	48.05	2.49.50	—	—
300			3.02.25	3.31.15
400			3.05.50	3.27.45
500			3.08.30	
520			3.29.05	3.22.35

24.20

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1031

Date,

Sept. 14. 81

Locality,

Bearings,

Lat 39.57 N

Long 69.19 W

Time of day, 2.54 ; of tide,

State of sky,

Foggy

Temperature of air,

64

" surface of water, 65

" at depth of 5 fathoms, 63.5. 10 fms 58

" of bottom, 46 20 " 47

Depth, in fathoms, 240 255

30 " 45

50 " 46

Nature of bottom,

yellow mud

Direction of surface current,

Wind - N.N.E.

Force of surface current,

Wind - 4

Direction of bottom current,

Drift N.W. x N - 1 1/2 mile

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

TEMPERATURE RECORD.

Instrument used, *Small Trawl*

Current number of observation, *1032*

Date, *Sept. 14, 81*

Locality,

Bearings, *Lat 39.56 N*
Long 69.22 W

Time of day, *4.00* ; of tide,

State of sky, *Cloudy*

Temperature of air, *65*

" surface of water, *65*

" at depth of *5* fathoms, *63.5*, *10 fms 58*

" of bottom, *46* *20 - 47*

Depth, in fathoms, *200 208* *30 - 45*
50 - 46

Nature of bottom, *Yellow Mud*

Direction of surface current,

Wind NNE

Force of surface current,

Wind 5

Direction of bottom current,

Drift

Force of bottom current, *2.2. 1/4'*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1033.

1033.

Trawl Time

Down	up
------	----

0

5.05

100

300

382

5.25

404

5.26,45-5.35,45

No 46402, substituted
for battery & interconnect
temperatures,

TEMPERATURE RECORD.

Instrument used, *Trawl.*

Current number of observation, *1033*

Date, *Sept 14. 1881.*

Locality,

Bearings, *Lat 39.56 N*

Long 69.24 W

Time of day, *4.55 ~~PM~~ AM.*

State of sky, *b. c.*

Temperature of air, *66°*

" surface of water, *63° N. E. #46405*

" at depth of *5* fathoms, *63° 10' 57"*

" of bottom, *20 f 47"*

Depth, in fathoms, *183 175 f. S. E. 30 f 47"*

Nature of bottom, *S. E.*

Direction of ~~surface~~ *drift* current, *N. E.*

Force of ~~surface~~ *drift* current, *3.*

Direction of ~~bottom~~ *drift* current, *NNW.*

Force of ~~bottom~~ *drift* current, *2 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1034
REMARKS.

Sund		Tues	
Time	Temp	Time	Temp
100	15.5.20	6.05.00	6.07.45
120	15.6.50	6.03.28	6.14.00
140	15.7.9.5	6.03.00	6.27.15
160			
180			
200			
220			
240			
260			
280			
300			

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation, 1034

Date, Sept, 14, 81

Locality,

Bearings, Lat 39.56 N

Long 69.26 W

Time of day, 5.53; of tide,

State of sky, b. c.

Temperature of air, 66

" surface of water, 62.

" at depth of 5 fathoms,

n.g. 46402.

60

10 fms 54

" of bottom, 46.5

20 - 47

30 - 47

50 - 49

Depth, in fathoms, ~~140~~ 146

Nature of bottom, sand & yellow mud

Direction of surface current, Wind N. E.

Force of surface current, Wind 3

Direction of bottom current,

Drift - N. N. W 1/2 mile

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

TEMPERATURE RECORD.

Instrument used, *Iron Trawl*

Current number of observation, *1035*

Date, *Sept 14. 81*

Locality,

Bearings, Lat *39.57 N*

Long *69.28 W*

Time of day, *6.56* ; of tide,

State of sky, *b. c.*

Temperature of air, *65*

" surface of water, *62*

" at depth of *5* fathoms, *60*⁰ *10 fms. 57*

" of bottom, *47* *20 - 47*

Depth, in fathoms, *116 120*

30 - 47
50 - 49

Nature of bottom, *Sand*

Direction of ~~surface current~~, *wind N. E.*

Force of ~~surface current~~, *3*

Direction of bottom current,

Drift North 3 miles

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Bridge

2 - Down	up
100 - 7.54.30	8.31.20
100 -	
100 -	
100 - 8.11.15	8.21.35

↗

TEMPERATURE RECORD.

Instrument used,

Rake Bridge

Current number of observation, 1036

Date,

Sept 14, 81

Locality,

Bearings

Lat 39, 58 N.
Long 69, 30 W

Time of day,

7:54 P.M.; of tide,

State of sky,

b. c.

Temperature of air,

62.

"

surface of water, 61.5

"

at depth of — fathoms.

"

of bottom, S.

Depth, in fathoms,

90 94

Nature of bottom,

Sand

Direction of surface current,

Wind N. E.

Force of surface current,

Wind 4

Direction of bottom current,

Wind N N W 1/2 W

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

#10373 Lpt 14th 7.20 am
 16 f. L. Trench - 1st Head
 bearing N. E. $\frac{3}{4}$ N. 4.

1038.
 No specific granules bottom.

Fathoms	Time		up
	down		
100	7	18	7 40
112			
200			
300			
325	7	23	7 57
Length of line 325 fathoms			

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation, 1028

Date,

Sept 21st, 1881

Locality,

Bearing Lat, 38° 56' N by 70.06 W.

Time of day, 6.55 ; of tide,

State of sky,

Hazy -

Temperature of air,

67°

" surface of water,

67°

" at depth of 5 fathoms, 68° - 10 fms 68°

" of bottom, 47° - 20° 49°

Depth, in fathoms,

146. f.

Nature of bottom,

Sand & shells

Direction of surface current,

Wind N + E

Force of surface current,

Wind 4

Direction of bottom current,

Drift N + E 1 mile

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

Fish Commission

Name and rank of commanding officer,

W. J. L. Linn

Name and position of observer,

REMARKS.

No. 3. G. L. L. L.

Trawl Soundings

Depth.

Time

0	9.45	10.24
200		
100		
200		
295	10.02	10.35

length of line out 295 fathoms

1039

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1039

Date,

Sept 21 1887

Locality,

Lat 38-55 N,

Bearings,

Long 70-06 W.

Time of day,

9.35

; of tide,

State of sky,

Hazy

Temperature of air,

56.50

"

surface of water,

67

"

at depth of

fathoms,

68° - 10 fms.

"

of bottom,

50'

Depth, in fathoms,

130 136

Nature of bottom,

Sand and shells

Direction of surface current,

Wind N. E.

Force of surface current,

Wind 6

Direction of bottom current,

Drift N + E. 2 miles

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

Fish Commission

Name and rank of commanding officer,

Lieutenant
Zora A. Tanner

Name and position of observer,

10 ~~420~~ 420

REMARKS.

No fish taken

Exception dredge
ground sounding

depth	time	
	down	up
-55-	10.49	- 11.15
100		
200		
300		
340	11.08	- 11.26

length of line out 340 fms -

1640

TEMPERATURE RECORD.

Instrument used, *Excellior brand*Current number of observation, *1040*Date, *Sept 21 1881*Locality, *Lat. 40.00. N.*Bearings, *Long. 70.06. W.*Time of day, *10.43* ; of tide,State of sky, *Hazy*Temperature of air, *64°*" surface of water, *63°*" at depth of *2* fathoms," of bottom, *66°*Depth, in fathoms, *~~72~~ 93.*Nature of bottom, *Sand and shell*Direction of surface current, *Wind N. N. E.*Force of surface current, *Wind 6*Direction of bottom current, *Drift N + E 2 miles*

Force of bottom current,

Name of vessel, *Fish Hawk*To what service attached, *F. C. M.*Name and rank of commanding officer, *Ensign**John B. Lawrence*

Name and position of observer,

1526
REMARKS.

Depth	Trawl fanning	
	Time	
	down	up
0000	12.33	12.49
	12.42	12.54

line register not
attached.

1046

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1046

Date,

Sept. 22 1881

Locality,

Far Sound

Bearings,

West Chop St. $2\frac{1}{2}$ h. $1\frac{3}{4}$

Time of day, 12.33 ; of tide,

State of sky,

b. c.

Temperature of air,

63-30

" surface of water,

65

" at depth of

5

fathoms,

65

" of bottom,

65

Depth, in fathoms,

9

Nature of bottom,

Gravel

Direction of surface-current, Wind

S. S. W.

Force of surface current, Wind

4

Direction of bottom-current, drift

N. S. W. $\frac{3}{4}$ mile

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

Fish Commission

Name and rank of commanding officer,

Lieutenant

J. L. Bauman

Name and position of observer,

1842

REMARKS.

Fath	Soundings	
	Time	Wt
—	1.17	1.20
36	1.24	
47	1.27	1.31

Length of line out — fathoms

1542
TEMPERATURE RECORD.

Instrument used, *Dredge*
Current number of observation, *1542*
Date, *Sept 22 1881*
Locality, *Vin - Island*
Bearings, *West Chop 2 1/2. N. 1. 1/2*

Time of day, *1.17* ; of tide, *S. e*

State of sky, *S. e*

Temperature of air, *63.30*

" surface of water, *65*

" at depth of fathoms,

" of bottom, *65*

Depth, in fathoms, *6*

Nature of bottom, *S. Gravel*

Direction of surface current, *Wind S. E. W*

Force of surface current, *Wind 5*

Direction of bottom current, *drift N. + N. 1/2 S. 1/2 W.*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieut*

J. S. Tanner

Name and position of observer,

10 43

REMARKS.

Depth	Spec. Grav	Temp
Surface	1.0256	65
5 fms	1.0254	64.5
10 "	1.0252	64

Trawl

fms	Time	Alt
0	7.17	7.47.15
100	7.26.00	7.44.05
200	7.28.50	7.41.05
260	7.21	7.38.50

TEMPERATURE RECORD.

Instrument used, *Trawl.*

Current number of observation, *1043*

Date, *Oct. 10*

Locality, *off Cape of Delaware*

Bearings, *Lat. 38. 33' N.*
Long 73. 11' W.

Time of day, *7. 17 am.* of tide.

State of sky, *partly cloudy*

Temperature of air, *63.5*

" surface of water, *65.5*

" at depth of *5* fathoms, *65.5*. *10 fms. - 65.5*

" of bottom, *49°* *20 " 52°*
30 "
50 "

Depth, in fathoms, *125 130.*

Nature of bottom, *Sand*

Direction of ~~surface current~~ *wind* *N. N. E*

Force of ~~surface current~~ *wind* *4*

Direction of ~~bottom current~~ *drift* *N N W 1 3/4*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1044

REMARKS.

Depth	Spec. Grav	Temp.
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Surf.	1.0252	65
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5 fms	1.0252	65.
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10 "		
------	--	--

Soundings

Trawlings

Depth			Time	Up
-------	--	--	------	----

0	5.54		8.31	9.18.30
---	------	--	------	---------

100			8.35.05	9.15.50
-----	--	--	---------	---------

200			39.15	9.12.00
-----	--	--	-------	---------

210				
-----	--	--	--	--

300			43.15	9.09.45
-----	--	--	-------	---------

400			47.45	9.06.20
-----	--	--	-------	---------

409				9.05.45
-----	--	--	--	---------

Current in surface
 Deepened water to 300 fms

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *1044*
 Date, *Oct. 10. 81*
 Locality,
 Bearings, *Lat. 38. 37 N.*
Long 73. 12 W.
 Time of day, *2.15* *High* of tide,
 State of sky, *Partly Cloudy*
 Temperature of air, *65*
 " surface of water, *66*
 " at depth of *5* fathoms, *66° - 10 fms - 65°*
20 - 62°
 " of bottom, *42-3.* *30 - 53°*
50 fms 52°
 Depth, in fathoms, *46 to 234.*
 Nature of bottom, *Sandy Mud.*
 Direction of ~~surface current~~, *Wind* *2 W.*
 Force of ~~surface current~~, *Wind* *3*
 Direction of ~~bottom current~~, *Drift, N. 71. 71. 1/2 W.*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

1045

REMARKS.

None taken

Sounding

Trawl

Depth				
0			32.30	37.55
100			36.25	34.50
200			40.25	31.00
300			44.50	27.15
400			48.15	23.20
500			52.15	19.45
550			54.50	19.45
600			10.01.40	15.55
650			10.06.00	10.16.25

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1045*

Date, *Oct. 10. 81*

Locality,

Bearings, *sur 38. 35. 2.*

Long 73. 13 20.

Time of day, *9.32* ; of tide,

State of sky, *partly cloudy*

Temperature of air, *67*

" surface of water, *66*

" at depth of *5* fathoms. - *66°* - *10 fms. 65°*

" of bottom, *40°* *20 63.*
30 53.
100 fms 51°

Depth, in fathoms, *300 312.*

Nature of bottom, *gray mud*

Direction of ~~surface~~ current, *Wind - near*

Force of surface current, *3*

Direction of bottom current,

Drift *W 3/4 N 3/4 mile*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1046

REMARKS.

Surface 1.0252. 65°
 5 fms 1.0254 65
 10 - 1.0255. 64

Depth	Lead		Trawl	
	Time	Time	Time	Time
0	11.09.10		11.14.00	50.50
100	09.15		11.17.10	47.30
200			23.10	11.42.00
2-30			11.38.15	11.42.40

N. 46405 broken ^{was} ~~(transmission)~~
 - 47996 substituted for
 surface temperatures

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1046

Date,

Oct 10. 91

Locality,

Bearings,

Lat 36.33. 2

Long 73. 18 W.

Time of day,

11.14

am

of tide,

State of sky,

Clear

Temperature of air,

66°

"

surface of water,

66°

"

at depth of

5

fathoms,

65°

10 f.

65

"

of bottom,

51°

20 f.

61

30 f.

53

Depth, in fathoms,

100

104

50 f.

52

Nature of bottom,

Sand

Direction of ~~surface current~~,

Wind North

Force of ~~surface current~~,

Wind

4

Direction of ~~bottom current~~,

Drift

W. N. W. 3/4 W.

Force of bottom current,

Name of vessel.

To what service attached.

Name and rank of commanding officer.

Name and position of observer.

10 44
REMARKS.

Trawl

	Down up	
0	12.15.	1.05.45
100	18.10	1.03.00
200	23.50	59.30
300	29.05	56.10
355	33.10	12.53.30

Register on boom showed 20 f
when trawl reached surface

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *1047*
 Date, *Oct. 10. 81*
 Locality,
 Bearings, *S. 36. 31 W.*
73-21.5
 Time of day, *12.15* ^{pm} of tide,
 State of sky, *Clear*
 Temperature of air, *69*
 " surface of water, *66°*
 " at depth of *5* fathoms, *65° - 105 - 65*
20 f - 61
 " of bottom, *49°* *30 f - 50*
50 f - 51°
 Depth, in fathoms, *150 - 156*
 Nature of bottom, *Sand*
 Direction of ~~surface current~~ *Wind* *North*
 Force of ~~surface current~~ *4*
 Direction of ~~bottom current~~ *Drift* *N.W. 1/2 W.*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

1048

REMARKS.

Surface	1.0250	65"
3 f	1.0248	65.5
10 f	1.0248	65.5

Landing

Trawling

0	1.47.20	56.05	1.55.00	16.00
100	1.48.05	54.50	55.20	12.50
200	1.49.55	2.53 15	2.03.05	09.40
300			2.07.30	06.15
400			11.30	3 02.30
500			14.45	58.00
600			17.55	53.50
700			20.45	2 46.35

Messenger $2.05^{\frac{200}{200}}$ = 200 f.

Register on beam 5 fths over
when trawl reaches surface

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1048

Date,

Oct. 10 81

Locality,

Bearings,

Lat 38.25 N.

Long 73.21 W.

Time of day,

1.55 ; of tide,

State of sky,

clear

Temperature of air,

71

"

surface of water,

66

"

at depth of

5

fathoms,

65.

"

of bottom,

40

Depth, in fathoms,

~~41~~ 43.5

Nature of bottom,

Mud.

Direction of surface current,

Wind North

Force of surface current,

4

Direction of bottom current,

Drift - N.

2 miles.

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

10 f. 65°
20 f. 55°
30 f. 49°
50 f. 51°
100 f. 51°
200 f. 45°

1049

REMARKS.

Trawl

0		3.30.50	5.07
100		3.37.00	5.03.00
200		40.15	58.30
300		44.40	53.45
400		48.00	50.15
500		51.20	46.30
600		53.50	42.30
700		56.00	4.37.00
800		58.00	4.23.30
977	•	4.18.30	4.17.15

all the weights on runners of
Trawl

Register in boom 3 fms from
when dredge reached surface

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *1049*
 Date, *Oct. 10. 81*
 Locality,
 Bearings, *Lat 34. 28. 20*
Long 73. 22. 00
 Time of day, *3.30* *P.M.* of tide.
 State of sky, *Clear*
 Temperature of air, *68*
 " surface of water, *66*
 " at depth of *5* fathoms, *66* - *10 fms 65*
20 fms 55
 " of bottom, *40°* *30 fms 40*
50 fms 35
 Depth, in fathoms, ~~*420*~~ *435* *100 50*
200 25
 Nature of bottom, *Mud*
 Direction of surface current, *None - North*
 Force of surface current, "
 Direction of bottom current, *Drift N N W 2 mi.*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

105-0

REMARKS.

Indyana system
off St. Jerome Creek.
Chocoma River Bay.

Caught Trout Creek & Cystine

105-0

TEMPERATURE RECORD.

Instrument used,

Oyster dredge.

Current number of observation,

105-0.

Date,

Feb. 27. 1882.

Locality,

Off St Jerome's Creek -

Bearings,

Point to Point, about S. 1 1/2

Time of day,

2 PM ; of tide, Ebb.

State of sky,

Partly Cloudy.

Temperature of air,

50

" surface of water,

51.

" at depth of

fathoms,

" of bottom,

Depth, in fathoms,

2 1/2

Nature of bottom,

Blue Muds, shells, Oysters.

Direction of surface current,

wind S.E.

Force of surface current,

1

Direction of bottom current,

drift

Force of bottom current,

Name of vessel,

U. S. Fish. Steamer Fish Hawk

To what service attached,

U. S. Fish Commission.

Name and rank of commanding officer,

Lieutenant

Name and position of observer,

REMARKS.

Bridge came up full of
grass.

1051

TEMPERATURE RECORD.

Instrument used, *Oyster Sledge*Current number of observation, *1051*Date, *Feb, 27, 1882*Locality, *Off St. Jerome Creek*Bearings, *N. X E. Point to Point, 1.*~~*South Point St. Jerome Creek*~~Time of day, *2.15 PM*; of tide, *ebb*State of sky, *Partly Cloudy*Temperature of air, *50°*" surface of water, *41°*

" at depth of fathoms,

" of bottom, *40*Depth, in fathoms, *2*Nature of bottom, *Blue mud & ~~fine shells~~ ^{Grass}*Direction of ~~surface current~~, *Wind S.E.*Force of ~~surface current~~, *1*Direction of ~~bottom current~~, *Drift*~~Name of bottom current,~~Name of vessel, *U. S. F. C. Ste Fish Hawk*To what service attached, *Fish Commission*Name and rank of commanding officer, *Lieutenant**G. L. Turner, U. S. N.*

Name and position of observer,

REMARKS.

Dredge came up full of
muds and grass.

1052

TEMPERATURE RECORD.

Instrument used, *Oyster Bedge*Current number of observation, *1052*Date, *Feb. 27 - 1882*Locality, *Off St. Jerome Creek*Bearings, *Point to Point over E. $\frac{3}{4}$ N*~~*North Point of St. Jerome Creek*~~Time of day, *2.30 PM*; of tide, *Ebb*State of sky, *Partly cloudy*Temperature of air, *50*" surface of water, *41°*

" at depth of fathoms,

" of bottom, *40*Depth, in fathoms, *10 fath.*Nature of bottom, *Soft Mud & Grass*Direction of ~~surface current~~, *Wind S.E.*Force of ~~surface current~~, *" 1*

Direction of bottom current,

Force of bottom current,

Name of vessel, *U.S.F.C. Fish Hawk*To what service attached, *Fish Commission*Name and rank of commanding officer, *Lieut. Commr**H. L. Tanner, U.S.N.*

Name and position of observer,

REMARKS.

One of the most beautiful
of the world

1053

TEMPERATURE RECORD.

Instrument used, *Oyster Dredge*Current number of observation, *1053*Date, *Feb. 27 - 1882*Locality, *Off St. Jerome Creek*Bearing, *Point No Point N. by E. 1/4*~~*South Point St. Jerome Creek, Wash.*~~Time of day, *2.45 Pm*; of tide, *Ebb*State of sky, *Partly Cloudy*Temperature of air, *50*" surface of water, *41*

" at depth of fathoms,

" of bottom, *40*Depth, in fathoms, *2 3/4*Nature of bottom, *Blue Mud & Shells.*Direction of ~~surface~~ ^{wind} current, *S.E.*Force of ~~surface~~ ^{wind} current, *1*Direction of ~~bottom~~ ^{Drift} current, *Drift*

Force of bottom current,

Name of vessel, *Pish Hawk*To what service attached, *Pish Commission*Name and rank of commanding officer, *Lieutenant**J. L. Tanner, U. S. N.*

Name and position of observer,

REMARKS.

Badge brought up Five
Bushels of Apples

1054

TEMPERATURE RECORD.

Instrument used, *Oyster Bedge*Current number of observation, *1054*Date, *Feb. 27-1882*Locality, *Off St. Jerome Cay*Bearings, *Point No Point $25^{\circ} 2' E$, $1^{\circ} 14'$* ~~*at St. Jerome Cay. West*~~Time of day, *2.58 P.M.*; of tide, *Ebb*State of sky, *Part Cloudy*Temperature of air, *50*" surface of water, *111*

" at depth of fathoms,

" of bottom, *40*Depth, in fathoms, *2, $3/4$* Nature of bottom, *Blue mud & shell*Direction of ~~surface current~~, *Wind S. E*Force of ~~surface current~~, *Wind 1*~~Direction of bottom current~~, *Drift*

Force of bottom current,

Name of vessel, *Fish Hawk*To what service attached, *Fish Commission*Name and rank of commanding officer, *Lieutenant**G. L. Tanner, U.S.N.*

Name and position of observer,

1055-

REMARKS.

Wrecks brought up a
few Oyster shells

1055

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *1055*
 Date, *Feb. 28 - 1882*
 Locality, *Mouth Pamlico River*
 Bearings, *Perry Pt. N.E. $\frac{1}{2}$ S.*

Time of day, *10.40 Am.*; of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *46*

" surface of water, *40*

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *6*

Nature of bottom, *~~Sl. M.~~ Mud & shells.*

Direction of ~~surface current~~, *Wind Calm*

Force of ~~surface current~~, *Wind 0*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

105-6

REMARKS.

Europe brought up a few
cigars, - Whales & Geese.

1056

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1056

Date,

Feb 25 - 1892

Locality,

Krom Point, Baltimore

Bearings,

20.00 E. 43'

Time of day, 10.55 (AM) ; of tide,

Flood

State of sky,

Cloudy

Temperature of air,

40

"

surface of water,

40

"

at depth of

fathoms,

"

of bottom,

Depth, in fathoms,

6

Nature of bottom,

Blue Mud & Shells

Direction of ~~surface current~~,

Wind Calm

Force of ~~surface current~~,

Wind

0

Direction of bottom current,

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1057
REMARKS.

Isard came up with
few jelly fish

TEMPERATURE RECORD.

Instrument used, *Beam Therm*

Current number of observation, *1057*

Date, *Feb 28-1882*

Locality, *Off Barron Island*

Bearings, *South Pt Barron Island*

Bearing E by S 1 3/4

Time of day, *morning*; of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *49*

" surface of water, *40*

" at depth of fathoms,

" of bottom, *40*

Depth, in fathoms, *17-20-12*

Nature of bottom, *Blue mud*

Direction of ~~surface~~ current, *Wind N-1*

Force of ~~surface~~ current, *Wind*

Direction of bottom current,

~~Force of bottom current,~~ *Brief "W, N, W, S"*

Name of vessel, *U. S. Steamer Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lt Jd Tanner*

Name and position of observer,

1057

1058

REMARKS.

Trawl dropped in 3 fathoms
and dragged across 25
fathoms on WNW course
Trawl hove up in 15 fathoms
At 12, 25 containing few
small fish and grass
1 crow fish, some shrimp and
Young Menhaden

TEMPERATURE RECORD.

Instrument used, *Beam Trawl*
 Current number of observation, *1058*
 Date, *Feb 28th 1882*
 Locality, *Off South end Barron Island*
 Bearings, *South Pt Barron Island*
bearing S 61st 2nd E. 2¹
 Time of day, *12.10* ; of tide, *Flood*
 State of sky, *Cloudy*
 Temperature of air, *49*
 " surface of water, *40*
 " at depth of fathoms,
 " of bottom, *40*
 Depth, in fathoms, *3-25-13*
 Nature of bottom, *Blue Mud*
 Direction of surface current, *N*
 Force of surface current, *1 1/2 Knot*
 Direction of ~~bottom~~ *current* *N-1*
 Force of ~~bottom~~ *current*, *Drift 2.15. 3/4*
 Name of vessel, *U S Steamer Fish Hawk*
 To what service attached, *Fish Commission*
 Name and rank of commanding officer, *Chas J. Tanner*
 Name and position of observer,

1059

REMARKS.

Trawl put over in 2 3/4 fathoms
water and dragged off shore
W. N. W. (magnetic) in 2 1/2 fathoms
and was hauled up in 14 fms
at 12.48. Containing small
fish and grass. Brit. species

TEMPERATURE RECORD.

Instrument used, *Beam Therm*
 Current number of observation, *1059*
 Date, *Feb 28th 1892*
 Locality, *off Barron Island*
 Bearings, *St Pt Barron Island S 6*
1/4 E 2'
 Time of day, *12.30* ; of tide, *Flood*
 State of sky, *Cloudy*
 Temperature of air, *49*
 " surface of water, *40*
 " at depth of fathoms,
 of bottom, *40*
 Depth, in fathoms, *2 3/4 faths - 25 - 14*
 Nature of bottom, *Blue Mud*
 Direction of surface current, *N*
 Force of surface current, *1 1/2 Knots*
 Direction of ~~bottom~~ winds, *Calm*
 Force of ~~bottom~~ current, *Drift 20 NW 3/4*
 Name of vessel, *U. S. Steamer Fish Hawk*
 To what service attached, *Fish Commission*
 Name and rank of commanding officer, *St Jd Tanner*
up
 Name and position of observer,

1060

REMARKS.

Beams Trawl was
put over at 4.40 and
dragged S E x S $\frac{3}{4}$ mile
At 5 hove up Trawl it
containing little grass
shells & blue mud

TEMPERATURE RECORD.

Instrument used, *Beam Therm*
 Current number of observation, *1060*
 Date, *Feb 28th 1882*
 Locality, *Smith Point*
 Bearings, *South by Pt SSW, 2 1/2*

Time of day, *440* of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *46*

surface of water, *41*

at depth of fathoms,

of bottom, *40 1/2*

Depth, in fathoms,

Nature of bottom, *Blue mud & shells*

Direction of ~~surface~~ *Wind NE*

Force of ~~surface~~ *Wind 2*

Direction of ~~bottom~~ *Drift SE x S 3/4 mile*

Force of bottom current,

Name of vessel, *U. S. Steamer "Fish Hawk"*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *St. J. Tanner*

Name and position of observer,

C. H. Cleveland

U. S. Fish Comm.

1061

REMARKS.

at 11:20

Dredge was put over
in 11 fathoms water.

and hauled up at 11:28

from 16 fathoms water containing

1 shrimp - half dozen

small shell & blue mud

& small fish

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *1061*
 Date, *March 2nd 1892*
 Locality, *Chesapeake Bay*
 Bearings, *Smoke Pt. Lt. No. 5 ~~N. 45° E.~~*
S. 70 1/2° W. 1 1/2
 Time of day, *11.20* ; of tide, *Ebb*
 State of sky, *Clear*
 Temperature of air, *48*
 " surface of water, *41 1/2*
 " at depth of fathoms,
 " of bottom, *41 1/2*
 Depth, in fathoms, *11 - 16*
 Nature of bottom, *Blue mud & shells*
 Direction of ~~surface current~~, *Wind NW*
 Force of ~~surface current~~, *Wind 2*
 Direction of bottom current, *Drift S 1/2 mile*
 Force of bottom current,
 Name of vessel, *U.S. Steamer Fish Hawk*
 To what service attached, *Fish Commission*
 Name and rank of commanding officer, *St. J. J. Tanner*
ago
 Name and position of observer,

1062

REMARKS.

Beam Trawl put over
at 11.40 in 16 faths water
and hove up at 11.55 from
3 1/2 faths containing nothing

TEMPERATURE RECORD.

Instrument used, *Bain Therm*
 Current number of observation, *1062*
 Date, *Feb 2 1882*
 Locality, *Chesapeake Bay*
 Bearings, *Smiths Pt Lt S 10° E 1/2 E*

 Time of day, *11.40* ; of tide, *Ebb*
 State of sky, *Clear*
 Temperature of air, *48*
 " surface of water, *41 1/2*
 " at depth of fathoms,
 " of bottom, *41 1/2*
 Depth, in fathoms, *16-11-10-9 1/2*
 Nature of bottom, *Blue mud & shells*
 Direction of surface current, *Wind NW*
 Force of surface current, *Wind 2*
 Direction of bottom current, *Drift S x W 1 mile*
 Force of bottom current,
 Name of vessel, *U S S Fish Hawk*
 To what service attached, *Fish Commission*
 Name and rank of commanding officer, *Ct Jd Tanner*

 Name and position of observer,

1063

REMARKS.

Chester Rake Sledge
was put over at 1.35 PM
in 10 1/2 fathoms water
and hove up at 1.45 from
9 3/4 fathoms containing sea
mud and shrimp also
two species of marine
worms 1 small fish

TEMPERATURE RECORD.

Instrument used, *Chester Rake Bridge*

Current number of observation, *1063*

Date, *Mich 2^d 1882*

Locality,

Bearings, *N x E $\frac{3}{4}$ E Sout Point
of Tangier Island 2 1/4*

Time of day, *1.35* 1/2 of tide, *Flood*

State of sky, *Clear*

Temperature of air, *50*

" surface of water, *44*

" at depth of fathoms,

" of bottom, *42*

Depth, in fathoms, *10 1/2 - 10 - 9 3/4*

Nature of bottom, *Grass & Blue Mud*

Direction of ~~surface current~~, *Wind North*

Force of ~~surface current~~, *Wind 2*

Direction of bottom current, *Drift N E x E 1/2 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *U. S. Fish Commission*

Name and rank of commanding officer, *Ct J. L. Tanner*

Name and position of observer,

1064

REMARKS.

Christie Rake dredge
was put over at 2.17 PM
in 20 fathoms water and
hove up at 2.25 from
9 1/2 fathoms water containing
Black mud & dead oyster
shells and dead grass
2 dozen Shrimp - Brown
tube & small shell

TEMPERATURE RECORD.

Instrument used, *Chester Rake Sledge*

Current number of observation, *1064*

Date, *Feb 2" 1882*

Locality,

Bearings, *N. N. W. South Pt of*

Longin Island 1'

Time of day, *2.17* ; of tide, *Flood*

State of sky, *Clear*

Temperature of air, *50*

" surface of water, *42*

" at depth of fathoms,

" of bottom, *42*

Depth, in fathoms, *20 - 9 1/2 -*

Nature of bottom,

Direction of ~~surface~~ current, *Wind NW*

Force of ~~surface~~ current, *Wind 2*

Direction of ~~bottom~~ current, *Drift N E & E 1/2 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lt J. H. Cannon*

Name and position of observer,

1065

REMARKS.

Beam Trawl was put over
at 9 am in 25 fathoms water
and dragged W about 1/2
mile - At 9.10 hauled up Trawl
in 12 fathoms it containing
Sea Mud, 1500 fish
4 Skates 15 Hermit Crabs
25 Brit. 50 Small Hake
several Shrimps. 2 Sea
Horses. Several Ripe fish
10 Small Flounders

Wt. Chertolm St. St. 600 E. N. 2.

TEMPERATURE RECORD.

Instrument used, *Beam Transit*

Current number of observation, *10.65*

Date, *Feb 6th 1882*

Locality, *Chesapeake Bay*

Bearings, *Bury off Entrance to Chesapeake*

Light bearing East 1/2 S 1/4

Time of day, *9* : of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *56*

" surface of water, *45*

" at depth of fathoms,

" of bottom, *46.5*

Depth, in fathoms, *25*

Nature of bottom,

Direction of ~~surface current~~, *Wind S.W.*

Force of ~~surface current~~, *3*

~~Direction of bottom current~~, *Drift W. 1/4 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Leatherstocking*

J. L. Tanner U.S.N.

Name and position of observer,

1066

REMARKS.

Beam Trawl was put out
at 9.20 AM, in 12 fms. water
and dragged S.E. at 9.33
hauled in Trawl in 16 fms.
containing grass and half
dozen small fish (Bait)

not H. 100. 125. 3.

TEMPERATURE RECORD.

Instrument used, *Beam Trawl*

Current number of observation, *1066*

Date, *Mar. 6. 1892*

Locality, *Chesapeake Bay.*

Bearings, *Buoy off Entrance to Chesapeake*

Light bearing S. E. E. 2.

Time of day, *9.20 AM*, of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *56.*

" surface of water, *45*

" at depth of fathoms,

" of bottom, *45*

Depth, in fathoms, *12*

Nature of bottom,

Direction of ~~surface current~~, *Wind S. S. W.*

Force of ~~surface current~~, *Wind 3.*

Direction of ~~bottom current~~, *Drift E. S. E. 1/4 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

J. L. Tanner U. S. N.

Name and position of observer,

REMARKS.

Beam Trawl was put
 over at 9.40 Am in 12
 fathoms water, at 9.50. hove up
 the Trawl. In 20 fms. water
 at 10.00. 1 Skate & about
 50 small hake & 1 big fish
 1 crab 25 Crabs and
 several Shrimps. 1 Horse fish
 12 H. laundus and few
 Hermit Crabs & small shell
 eggs & shell

Wt. 1st 100. 1st 25. 1st 25. 3'

TEMPERATURE RECORD.

Instrument used, *Brown Travel*

Current number of observation, *1067*

Date, *Mar. 5-1882*

Locality, *Chesapeake Bay*

Bearings, *Buoy off entrance to Chesapeake*

buoy S. 2, 1/4 S 2 1/4

Time of day, *9.40 AM*; of tide, *Flood*

State of sky, *Partly Cloudy*

Temperature of air, *56*

" surface of water, *45*

" at depth of fathoms,

" of bottom, *47*

Depth, in fathoms, *12*

Nature of bottom,

Direction of ~~surface current~~, *Wind S. S. W.*

Force of ~~surface current~~, *Wind S.*

~~Direction of bottom current~~, *Drift WNW 1/2 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

J. L. Tanner, U. S. N.

Name and position of observer,

1068

REMARKS.

Beam Trawl was put
down at 10 am in 14 fms.
of water. At 10.15 hours,
up Beam Trawl. It having
been down 15 minutes,
containing 1 Perch several
flat fish - mud & grass

TEMPERATURE RECORD.

Beam Trawl

Instrument used, *N.Y. 46402*

Current number of observation, *1063*

Date, *Mar. 11, 1882*

Locality, *Off Kent Island*

Bearings, *Thomas Pt. Lighthouse bearing*

N. x S. $\frac{3}{4}$ S. 2.

Time of day, *9.50* ; of tide, *Ebb.*

State of sky, *B. clear*

Temperature of air, *49*

" surface of water, *42*

" at depth of fathoms,

" of bottom, *41*

Depth, in fathoms, *14-9-*

Nature of bottom, *Dark Mud*

Direction of ~~surface current~~ *Wind drift*

Force of ~~surface current~~ *Wind 4*

Direction of bottom current, *Drift N $\frac{1}{2}$ mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

J. L. Tanner, U.S.N.

Name and position of observer,

1069

REMARKS.

Beam trawl was put
at 10.20 AM 18 fathoms of
water. Hove up Beam
trawl it having been
down 17 minutes containing
sea mud & several young
Herring

TEMPERATURE RECORD.

Instrument used, *Barnes Thermometer*
 Current number of observation, *1069*
 Date, *March 11 - 1882*
 Locality, *Off Rock Island*
 Bearings, *Thomas Pt. L. House*
Bearing S. W x W $\frac{3}{4}$ W. 2.74
 Time of day, *10.20* ; of tide, *Ebb*
 State of sky, *Clear*
 Temperature of air, *51*
 " surface of water, *42*
 " at depth of fathoms,
 " of bottom, *40*
 Depth, in fathoms, *18*
 Nature of bottom, *Black Mud.*
 Direction of ~~surface current~~, *Wind N.W.*
 Force of ~~surface current~~, *Wind 4*
 Direction of ~~bottom current~~, *Drift S.W. $\frac{1}{2}$ mi.*
 Force of bottom current,
 Name of vessel, *Fish Hawk*
 To what service attached, *Fish Commission*
 Name and rank of commanding officer, *Lieutenant*
B. L. Tanner, U.S.N.
 Name and position of observer,

1070

REMARKS.

Beam Trawl was put
over at 10.45 Am. in
15 fms. of water, it having
been down 18 minutes
Hove it up containing several
young Menhaden. 2 Small
Rock fish and 1 flounder

TEMPERATURE RECORD.

Instrument used, *Beam Trawl*

Current number of observation, *1070*

Date, *March 11, 1882*

Locality, *Off North Island*

Bearings, *Thomas Pt. S. House*

Leaving 14 x 3. 2.

Time of day, *10.45 AM*; of tide, *Ebb*

State of sky, *Clear*

Temperature of air, *45-*

" surface of water, *42*

" at depth of fathoms,

" of bottom, *42*

Depth, in fathoms, *15 - 11 - 10*

Nature of bottom, *Black mud*

Direction of ~~surface current~~, *Wind S.W.*

Force of ~~surface current~~, *Wind 4*

Direction of ~~bottom current~~, *Drift S.S.W. 1/2 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

B. L. Tanner, U. S. N.

Name and position of observer,

1071

REMARKS.

Beam Trawl was put
over at 11.22 am in 14 fms.
of water and hauled up
at 14 minutes of 12. m.
It having been hauled 24
minutes. Contained a few
shrimp and young Menidia

TEMPERATURE RECORD.

Instrument used, *Beam Therm*
 Current number of observation, *1071*
 Date, *March 11, 1882*
 Locality, *Off. West Island*
 Bearings, *Thomson, Pt. bearing*
W x N 1/2 N. 2, 74
 Time of day, *11.22 AM* of tide, *ebb*
 State of sky, *Clear*
 Temperature of air, *49*
 " surface of water,
 " at depth of fathoms,
 " of bottom, *40*
 Depth, in fathoms, *14 - 15 13.*
 Nature of bottom, *Black mud*
 Direction of ~~surface current~~, *Wind N.W*
 Force of ~~surface current~~, *Wind 4*
 Direction of ~~bottom current~~, *Drift S 7/8 W 3/4 mile*
 Force of bottom current,
 Name of vessel, *Fish Hawk*
 To what service attached, *Fish Commission*
 Name and rank of commanding officer, *Lieutenant*
W. L. Tanner, U.S.N.
 Name and position of observer,

1072

REMARKS.

Put Rake Dredge over
at 12 m. in 16 fms of
water - At 12.20 hove
up dredge it containing
nothing

TEMPERATURE RECORD.

Instrument used, *Rake Dredge*
 Current number of observation, *1072*
 Date, *march 11-1882*
 Locality, *Off Kent Island*
 Bearings, *Thomas Pt. bearing*
N.W. 2 1/4
 Time of day, *12.m* ; of tide, *Ebb*
 State of sky, *Clear*
 Temperature of air, *50*
 " surface of water, *42*
 " at depth of fathoms,
 " of bottom, *42*
 Depth, in fathoms, *16*
 Nature of bottom, *Black mud*
 Direction of ~~surface current~~, *Wind N.W*
 Force of ~~surface current~~, *Wind 4*
 Direction of ~~bottom current~~, *Drift S 3/4 mile*
 Force of bottom current,
 Name of vessel, *Fish Hawk*
 To what service attached, *Fish Commission*
 Name and rank of commanding officer, *Lieutenant*
G. L. Tanner U.S.N.
 Name and position of observer,

1073

REMARKS.

Put Rake Dredge over at
12.25 PM in 15 fathoms
Water at 12.47 hove up Rake
Dredge - it containing Oyster
shells & grass - 2 crabs and
2 marine worms

19.

TEMPERATURE RECORD.

Instrument used, *Rake Dredge*

Current number of observation, *1073*

Date, *March 11th 1882*

Locality, *off Kent Island*

Bearings, *Thomas Pt bearing*

NW x N 2 1/2

Time of day, *12.25* ; of tide, *Ebb*

State of sky, *Clear*

Temperature of air, *50*

" surface of water, *42*

" at depth of fathoms,

" of bottom, *42*

Depth, in fathoms, *13 - 13 -*

Nature of bottom, *Blk Mud & Shells*

Direction of ~~surface current~~, *wind NW*

Force of ~~surface current~~, *wind 3*

Direction of ~~bottom current~~ *drift SSW*

Force of bottom current,

Name of vessel, *"Fish Hawk"*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lt Izera de*

Tanner USN

Name and position of observer,

REMARKS.